

## ABSTRACT

The invention enables the accurate detection of the focal length for focusing by using color data. An image processing circuit (15) generates image data representing brightness and each of the colors of R (red), G (green) and B (Blue). Either automatically or in response to operation by the photographer, image data to be used for focusing is selected from the image data representing the brightness and the respective colors, and the amount of the weight for each respective image data is set. A plurality of images are photographed while the optical system (11) is driven to change its focal length. A focal length is calculated for each selected image data. Weight is applied to each one of the calculated focal lengths so as to calculate a final focal length. As the use of the image data of an appropriate color enables the range finding for a subject, the distance to which cannot be measured solely from brightness, the present invention not only ensures accurate measurement of the distance for focusing but also enables the reduction of types of subjects that present difficulties in focus control. In addition, capturing images at focal lengths that have been respectively detected by using color data of a plurality of colors (i.e. bracket photography) increases the possibility of focusing on a subject which is characterized by specific color

data. Therefore, the possibility of capturing an image for which the lens is correctly focused for a subject on which the photographer intends to focus is increased.